

ABSTRACT

A coding apparatus capable of reducing a circuit scale and also reducing the amount of coding processing calculation is disclosed. In this apparatus, frequency domain conversion section (103) performs a frequency analysis of the signal sampled at a sampling rate F_x with an analysis length of $2 \cdot N_a$ and calculates first spectrum $S_1(k)$ ($0 \leq k < N_a$). Bandextension section (104) extends the effective frequency band of first spectrum $S_1(k)$ to $0 \leq k < N_b$ so that a new spectrum can be assigned to the extended area following to the frequency $k = N_a$ of first spectrum $S_1(k)$. Extended spectrum assignment section (105) assigns extended spectrum $S_1'(k)$ ($N_a \leq k < N_b$) input to the extended frequency band from outside. Spectral information specification section (106) outputs information necessary to specify extended spectrum $S_1'(k)$ out of the spectrum given from extended spectrum assignment section (105) as a code.